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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/583,797	05/31/2000	Rosario A. Uceda-Sosa	POU9-2000-0018-US1	9330
46369 7590 03/25/2008 HESLIN ROTHENBERG FARLEY & MESITI P.C. 5 COLUMBIA CIRCLE ALBANY, NY 12203				
EXAMINER VO, LILIAN				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/583,797

**Applicant(s)**

UCEDA-SOSA ET AL.

**Examiner**

LILIAN VO

**Art Unit**

2195

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3, 10 - 22 and 49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 10 - 22 and 49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1, 3, 10 – 22 and 49 are pending. Claims 2, 4 – 9, 23 – 48 and 50 - 51 have been cancelled.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/15/08 has been entered.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1, 21 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voll et al. (US Pat 5,551,028, hereinafter Voll).
5. Regarding **claim 1**, Voll discloses a method of managing the locking of resources of a data repository, said method comprising:

having a data repository comprising a hierarchical structure of a plurality of dependently sequenced resources, said hierarchical structure comprising one or more resources having a reference-based relationship and one or more resources having a containment based relationship (figs. 10 and 11, col. 9 lines 30 – 38, col. 11 lines 15 - 20);

determining whether a relationship between one resource and another resource of the data is a containment-based relationship or whether the relationship is reference-based relationship, wherein the relationship between the one resource and the another resource is a containment based relationship if the one resource is accessed through the another resource and if there is only one reference from instances of the one resource to the another resource, and the relationship between the one resource and the another resource is a reference based relationship if the one resource is accessed through the another resource and if there are more than one reference from instances of the one resource to the another resource (fig. 10 and 11, col. 11 lines 15 – 20, lines 39 – 57, col. 10 line - col. 11 line 2, col. 15 lines 27 – 30, 34 - 40);

locking at least one resource of the one resource and the another resource using a chained locking strategy, in response to the determining indicating the relationship is a containment based relationship (col. 10 line - col. 11 line 2, lines 39 – 52, col. 15 lines 20 – 45); and

locking at least one resource of the one resource and the another resource using reference based locking strategy, in response to the determining indicating the relationship is a reference based relationship (col. 10 line - col. 11 line 2, lines 39 – 52, col. 15 lines 20 – 45, col. 16 lines 43 - 44), wherein a chained locking strategy is a different locking strategy than a reference based locking strategy (col. 11 lines 39 – 50, col. 15 lines 45 – 60).

Voll teaches that the resources are related through either containment or reference (col. 11 lines 15 - 20 and fig. 10) and that there are containment traversal rule and reference traversal rule each which apply to containment and reference type respectively. Voll also teaches that the resource type and the lock status of the resource is being determined (col. 10 lines 31—54, col. 15 lines 28 - 30). Therefore, it would have been obvious for one of an ordinary skill in the art at the time the invention was made to recognize that Voll uses different locking strategies as he tries to access different types of resources because each type of resources has a specific traversal rule.

6. Regarding **claim 21**, Voll discloses the determining comprises employing a set of policies (col. 7 lines 32, col. 9 lines 11 - 21).

7. Regarding **claim 49**, Voll discloses each resource of the plurality of independent sequenced resources includes a count of the number of references made to it (col. 11 lines 15 - 24, col. 10 lines 53 - 54).

8. Claims 3, 10 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voll et al. (US Pat 5,551,028, hereinafter Voll), as applied to claim 1 above, in view of Soltis et al (US 6,493,804, hereinafter Soltis),

9. Regarding **claim 3**, as modified Voll did not clearly disclose the additional limitation as claimed. Nevertheless, Soltis discloses the locking of said at least one resource is further based

Art Unit: 2195

on an operation to be performed (abstract, col. 9 lines 42 - 65). Therefore, it would have been obvious for one of an ordinary skill in the art, at the time the invention was made to incorporate Voll's teaching together with Soltis to perform the necessary operation and able to maintain the data integrity.

10. Regarding **claim 10**, as modified Voll discloses the operation comprises at least one of create, delete, read and write (Voll: col. 10 lines 44 - 45. Soltis: col. 9, lines 42 - 65, col. 14, lines 33 - 55, col. 19, lines 15 - 34).

11. Regarding **claim 22**, as modified Voll discloses the resource comprises at least one of a table and a directory (Soltis: fig. 5).

12. Claims 11 - 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voll et al. (US Pat 5,551,028), as applied to claim 1 above, in view of Soltis et al (US 6,493,804) and further in view of Shaughnessy (US 5,555,388).

13. Regarding **claim 11**, as modified Voll discloses the relationship is a containment-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Voll: fig. 10). As modified Voll did not clearly specify the locking comprises write locking the first resource in order to create an instance of the second resource. Nevertheless, the concept can be found from Shaughnessy in which a write locking the first resource in order to create an instance the second resource (col.

10, lines 8 – 12: “Suppose, for example, a user is copying an Orders table. With a write lock in place, other users can concurrently view the table but cannot change the table structure or contents until the lock is lifted ...”. Col. 10, lines 25 - 28). It would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate this concept to modified Voll to prevent other users from changing the contents of a family of objects (Shaughnessy: col. 9, line 66 – col. 10, line 1).

14. Regarding **claim 12**, as modified Voll discloses the relationship is a containment-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Voll: fig. 10), wherein the locking comprises write locking the first resource and the second resource in order to delete an instance of the second resource (Shaughnessy: col. 9, line 44 – col. 10, line 37).

15. Regarding **claim 13**, as modified Voll discloses the relationship is a containment-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Voll: fig. 10), wherein the locking comprises read locking the second resource in order to read therefrom (Shaughnessy: col. 9, line 18 – col. 10, line 37 and col. 15, lines 42 - 44).

16. Regarding **claim 14**, as modified Voll discloses the relationship is a containment-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Voll: fig. 10), wherein the locking comprises

write locking the second resource in order to write thereto (Shaughnessy: col. 9, line 18 – col. 10, line 37).

17. Claims 15 –20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voll et al. (US Pat 5,551,028), as applied to claim 1 above, in view of Soltis et al (US 6,493,804), and further in view of Annevelink (US 5,448,727).

18. Regarding **claim 15**, as modified Voll discloses the relationship is a reference-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Voll: fig. 10). As modified Voll did not clearly disclose the locking comprises write locking the first resource in order to delete the first resource. However this concept can be found from Annevelink in which she discloses the reference-based relationship (Annevelink: col. 18, table 4 and fig. 6) and write locking the object in order to delete the object (Annevelink: col. 12, lines 27 – lines 31, lines 42 - 63). It would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate this feature to modified Voll to improve concurrency access to database.

19. Regarding **claim 16**, as modified Voll discloses the relationship is a reference-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Voll: fig. 10), wherein the locking comprises write locking the first resource in order to create an instance of the second resource (Annevelink:



Art Unit: 2195

col. 18, table 4, fig. 6, col. 11, lines 36 – 52, col. 12, lines 27 – lines 31, lines 42 – 63, col. 13, lines 25 – 46).

20. Regarding **claim 17**, as modified Voll discloses the relationship is a reference-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Voll: fig. 10), wherein the locking comprises write locking the at least one instance of the first resource in order to delete the second resource (Annevelink: col. 18, table 4, fig. 6, col. 12, lines 27 – lines 31, lines 42 – 63).

21. Regarding **claim 18**, as modified Voll discloses the relationship is a reference-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Voll: fig. 10), wherein the locking comprises read locking the first resource and the second resource in order to read the second resource (Annevelink: col. 18, table 4, fig. 6, col. 12, lines 27 – lines 31, lines 42 – 63).

22. Regarding **claim 19**, as modified Voll discloses the relationship is a reference-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource (Voll: fig. 10), wherein the locking comprises read locking the first and second resource and write locking the second resource in order to write to the second resource (Annevelink: col. 18, table 4, fig. 6, col. 12, lines 27 – lines 31, lines 42 – 63).

23. Regarding **claim 20**, as modified Voll discloses the relationship is a reference-based relationship, wherein the at least one resource comprises a first resource, a second resource and a third resource, the first resource and the second resource referencing the third resource (Voll: fig. 10), wherein the locking comprises read locking the first and second resource and write locking the third resource in order to write the third resource (Annevelink: col. 18, table 4, fig. 6, col. 12, lines 27 – lines 31, lines 42 - 63).

#### ***Response to Arguments***

24. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LILIAN VO whose telephone number is (571)272-3774. The examiner can normally be reached on Thursday 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2195

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/  
Supervisory Patent Examiner, Art Unit 2195

Lilian Vo  
Examiner  
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